WHAT IS CLAIMED IS:

1. A material handling system, comprising:

a main processor configured to produce a transfer command, wherein the transfer command directs the movement of a work piece from a first fabrication area to a second fabrication area;

a remote processor coupled to receive the transfer command and configured to produce a control signal in response to the transfer command; and

a transfer tool coupled to receive the control signal and configured to execute the control signal.

2. The material handling system as recited in claim 1, wherein the work piece comprises a semiconductor wafer.

3. The material handling system as recited in claim 1, wherein the transfer command identifies the work piece.

4. The material handling system as recited in claim 1, wherein the remote processor selects a stock area within the first fabrication area which is to serve as the source of the work piece.

5. The material handling system as recited in claim 1, wherein the remote processor selects a stock area within the second fabrication area which is to serve as a final destination for the work piece.

6. The material handling system as recited in claim 1, wherein the transfer tool is

selected from the group consisting of a transportation system, a stock area, a robotic arm, an air lock chamber, and a mass transfer system.

7. The material handling system as recited in claim 1, further comprising an internal network transmission medium, wherein internal network transmission medium is used to convey electrical signals, and wherein the main processor and the remote processor are coupled to the internal network transmission medium and communicate via the internal network transmission medium.

8. The material handling system as recited in claim 7, wherein the internal network transmission medium is selected from the group consisting of a multi-conductor cable, a coaxial cable, and a fiber-optic cable.

9. The material handling system as recited in claim 1, further comprising a cell network transmission medium, wherein the cell network transmission medium is used to convey electrical signals, and wherein the remote processor and the transfer tool are coupled to the cell network transmission medium and communicate via the cell network transmission medium.

10. The material handling system as recited in claim 9, wherein the network transmission medium is selected from the group consisting of a multi-conductor cable, a coaxial cable, and a fiber-optic cable.

11. A material handling system, comprising:

a main processor configured to produce a transfer command, wherein the transfer command directs the movement of a work piece from a first fabrication area to a second fabrication area;

a first remote processor coupled to receive the transfer command and configured to produce a first control signal in response to the transfer command;

a second remote processor coupled to receive the transfer command and configured to produce a second control signal in response to the transfer command;

a first transfer tool coupled to receive the first control signal and configured to execute the first control signal; and

a second transfer tool coupled to receive the second control signal and configured to execute the second control signal.

12. The material handling system as recited in claim 11, wherein the first transfer tool is located within the first fabrication area and selected from the group consisting of a transportation system, a stock area, and a robotic arm.

13. The material handling system as recited in claim 11, wherein the second transfer tool is located within the second fabrication area and selected from the group consisting of a transportation system, a stock area, and a robotic arm.

14. A material handling system, comprising:

an internal network transmission medium for conveying communication signals;

a main processor coupled to the internal network transmission medium and configured to produce a transfer command upon the internal network

transmission medium, wherein the transfer command directs the movement of a work piece from a first fabrication area to a second fabrication area;

a cell network transmission medium for conveying control signals;

a remote processor coupled between the internal and cell network transmission media, wherein the remote processor is configured to receive the transfer command and to produce a control signal upon the cell network transmission medium in response to the transfer command; and

a transfer tool coupled to the cell network transmission medium, wherein the transfer tool is configured to receive and execute the control signal.

15. The material handling system as recited in claim 14, wherein the transfer tool is selected from the group consisting of a transportation system, a stock area, a robotic arm, an air lock chamber, and a mass transfer system.

16. A method of tracking the location of a work piece within a manufacturing facility including a first and second fabrication areas, wherein the work piece is located within the first fabrication area and is to be transferred to the second fabrication area, the method comprising:

providing a database including a location entry for the work piece, wherein the location entry indicates the work piece is located within the first fabrication area;

transferring the work piece from the first fabrication area to the second fabrication area; and

updating the database location entry to indicate the work piece is located within the second fabrication area.

17. The method as recited in claim 16, further comprising placing the work piece within a first container within the first fabrication area.

18. The method as recited in claim 17, further comprising providing an empty second container within the second fabrication area.

19. The method as recited in claim 18, wherein the transferring step comprises:

providing an air lock chamber in a sealed opening in a wall separating the first and second fabrication areas;

opening a first door at one side of said air lock chamber and inserting the work-piece-containing first container into the air lock chamber from the first fabrication area;

separating the work piece from the first container and thereafter extracting the first container from the air lock chamber through the first door and into the first fabrication area;

closing the first door and thereafter opening a second door configured at a side of the air lock chamber opposite the first door;

inserting the empty second container into the air lock chamber from the second fabrication area; and

placing the work piece within the second container and thereafter extracting the second container from the air lock chamber through the second door and into the second fabrication area.

20. The method as recited in claim 19, wherein said closing step comprises purging ambient from the air lock chamber after the first door is closed and before the second door is opened.

21. The method as recited in claim 19, wherein said first door separates said first fabrication area from said air lock chamber.

22. The method as recited in claim 19, wherein said second door separates said second fabrication area from said air lock chamber.